

Flame Metals SM 18 th and 19 th Ed. 3111B, D						Page 1 of 2
Relevant Aspect of Standards	Reference	Y	N	N/A	Comments	
Records Examined: SOP Number/ Revision/ Date _____ Analyst:_____						
Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____						
1) Does the calibration curve include at least three concentration points?	SM3111.B.4.c SM3111.D.4.c					
2) If samples require digestion, are standards and method blanks also subjected to digestion? (<i>Recommendation</i>)	SM3111.A.5 (INTRO)					
3) Is a blank analyzed with every batch and carried through all of the procedural steps, and are results below the method detection limit?	SM3020					
4) Are samples associated with a contaminated blank [] reprocessed or [] are the results reported with appropriate data qualifying codes?	SM3020				<i>Corrective action required if MB>MDL.</i>	
5) Is a matrix spike performed at a frequency of 1 in 10 samples, with an acceptable recovery of 85-115%?	SM3111.A.7 (INTRO)					
6) Is an additional standard (CCV) analyzed after every batch of 10 or fewer samples? (Recommended concentrations and criteria are in Table 3111:III.)	SM3111.A.7 (INTRO)					
7) Is a matrix spike duplicate (MSD) or a laboratory duplicate performed at a frequency of 1 in 20 samples per matrix, per sample extraction or preparation method?	SM1020B					
<u>Notes/Comments</u> 						

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Method Specific Requirements:					
8) Fuel & oxidant: <input type="checkbox"/> Commercial grade acetylene: <input type="checkbox"/> acetylene cylinders are changed before pressure drops below 100 psi; <input type="checkbox"/> NO copper or brass regulators, tubing, or fittings are used with acetylene. <input type="checkbox"/> Reagent grade nitrous oxide: <input type="checkbox"/> nitrous oxide supply is equipped with a non-freezable regulator <input type="checkbox"/> Air from compressed air line, laboratory compressor or commercial gas cylinder.	SM3111B.3.b, SM3111D.3.a SM3111D.3.h SM3111B.3.a, SM3111D.3.a				
9) Fuel supplies are maintained at pressure slightly higher than controlled operating pressure by suitable valves.	SM3111A.6.e				
10) Hollow cathode lamps (single element preferred) or electrode-less discharge lamps may be used.	SM3111A.6.d				
Sample Preparation:					
11) <input type="checkbox"/> Samples are digested for total metal analysis; or <input type="checkbox"/> samples are received preserved to pH <2 with conc. nitric, and records indicate that the turbidity is less than 1 NTU (drinking water); or <input type="checkbox"/> Samples are preserved in-house, analyzed a minimum of 16 hours after preservation, and records indicate that the turbidity is less than 1 NTU.	SM3111B.4.a, SM3030A , SM1060A.1 CFR 141.23 (k)(1), EPA 600/R-94/173				<i>Wastewater samples must be digested.</i>
12) MDL have been calculated within the last year. The MDL for drinking water <input type="checkbox"/> Barium is equal to or less than 2 mg/L; <input type="checkbox"/> Cadmium is equal to or less than 0.005 mg/L; <input type="checkbox"/> Chromium is equal to or less than 0.1 mg/L; <input type="checkbox"/> Copper is equal to or less than 1.3 mg/L	CFR 141.23				
<u>Notes/Comments</u>					